

SERV. 32 649

STEREO INTEGRATED AMPLIFIER

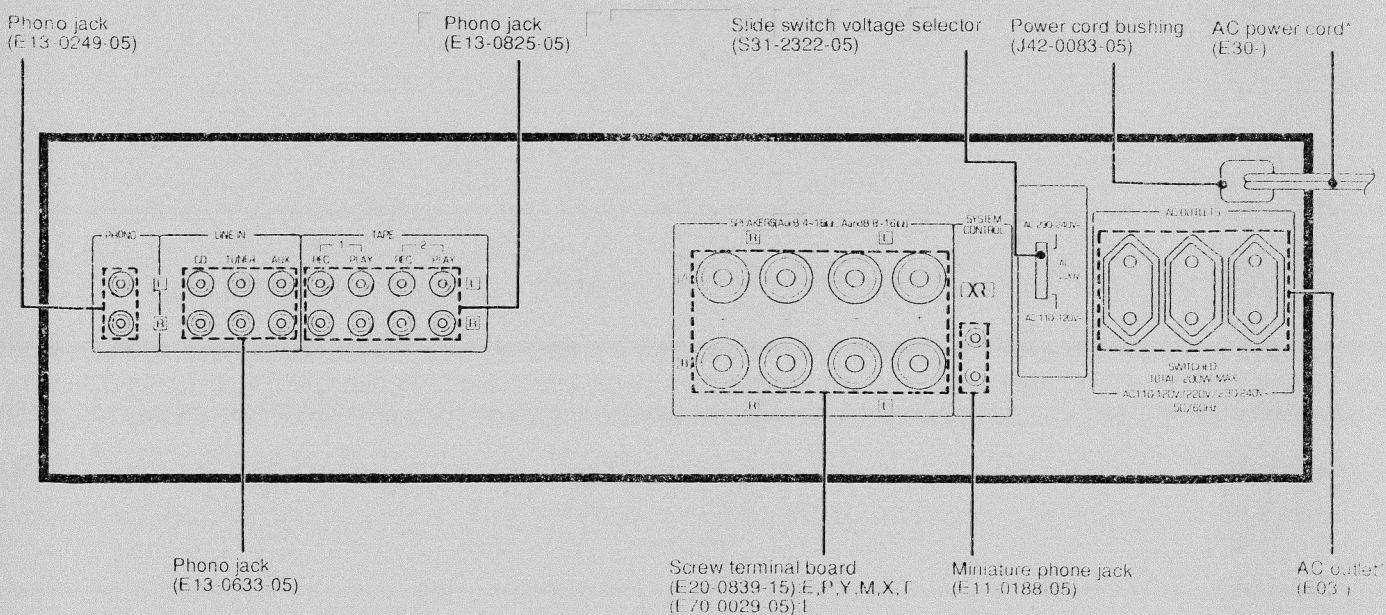
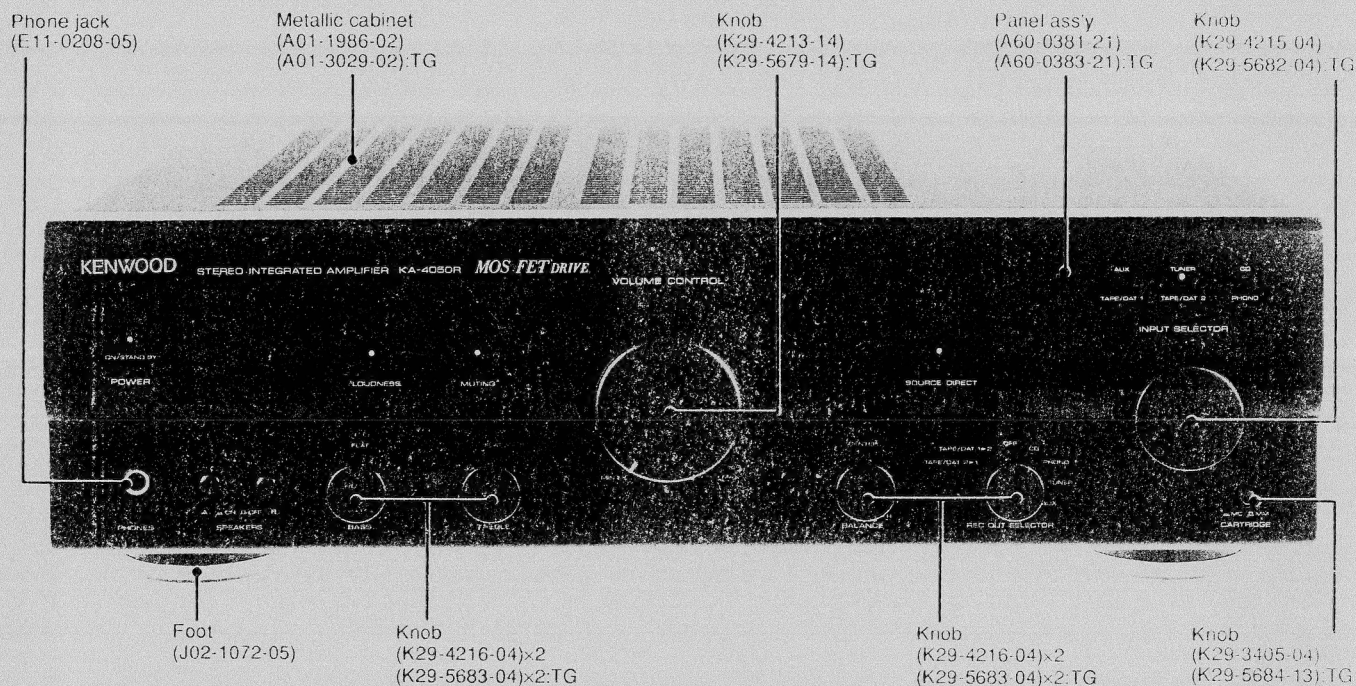
KA-4050R

SERVICE MANUAL

KENWOOD

1728

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B51-4707-00 (S) 2669



TG: TITAN GRAY: E-1

* Refer to parts list on page 21

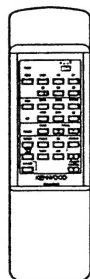
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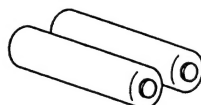
ACCESSORIES

Accessories

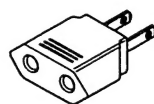
- Remote control unit 1
(A70-0932-05)
(A09-0146-08): Battery cover



- Batteries (R6/SUM-3/AA*)
..... 2



- AC plug adaptor 1
(Except for some areas)
For the unit with a Euro-
pean AC plug in areas
other than Europe.
(E03-0115-05)



INSTRUCTION MANUAL

B60-1136-00	ENGLISH	
B60-1137-00	FRENCH	E, L, P
B60-1138-00	GE, DU, IT	E, L
B60-1139-00	CHINESE	M
B60-1140-00	SPANISH	E, M

REMOTE CONTROL OPERATION

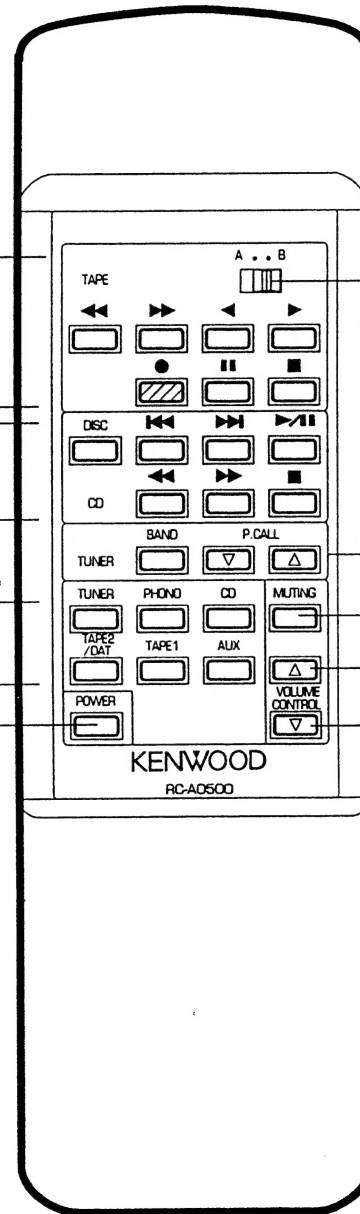
Operation keys for KENWOOD components connected by system control cords

Cassette deck operation keys

These keys perform the same operations as the corresponding keys on the cassette deck. However, operations requiring simultaneous pressing of two keys are not possible.

CD player operation keys

* The DISC key is only used for the Autochanger CD player.

INPUT SELECTOR keys**POWER key****TAPE A/B selector**

A : When operating Deck A of a double cassette deck, set this selector to the A position.
B : When operating Deck B of a double cassette deck or single cassette deck, set this selector to the B position.

TUNER operation keys**MUTING key****VOLUME UP (Δ), DOWN (▽) keys**

A70-0932-05
 A09-0146-08: Battery cover

KA4050R operation keys

These keys have the same function as the corresponding keys on the main unit.

ADJUSTMENT/REGLAGE/ABGLEICH

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, set the respective switches as follows: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	IDLE CURRENT	—	Connect a DC voltmeter across CN27 CN28	VOLUME: 0	VR1, 3(L) VR2, 4(R)	6 mV (30 mA)	(a)

REGLAGES

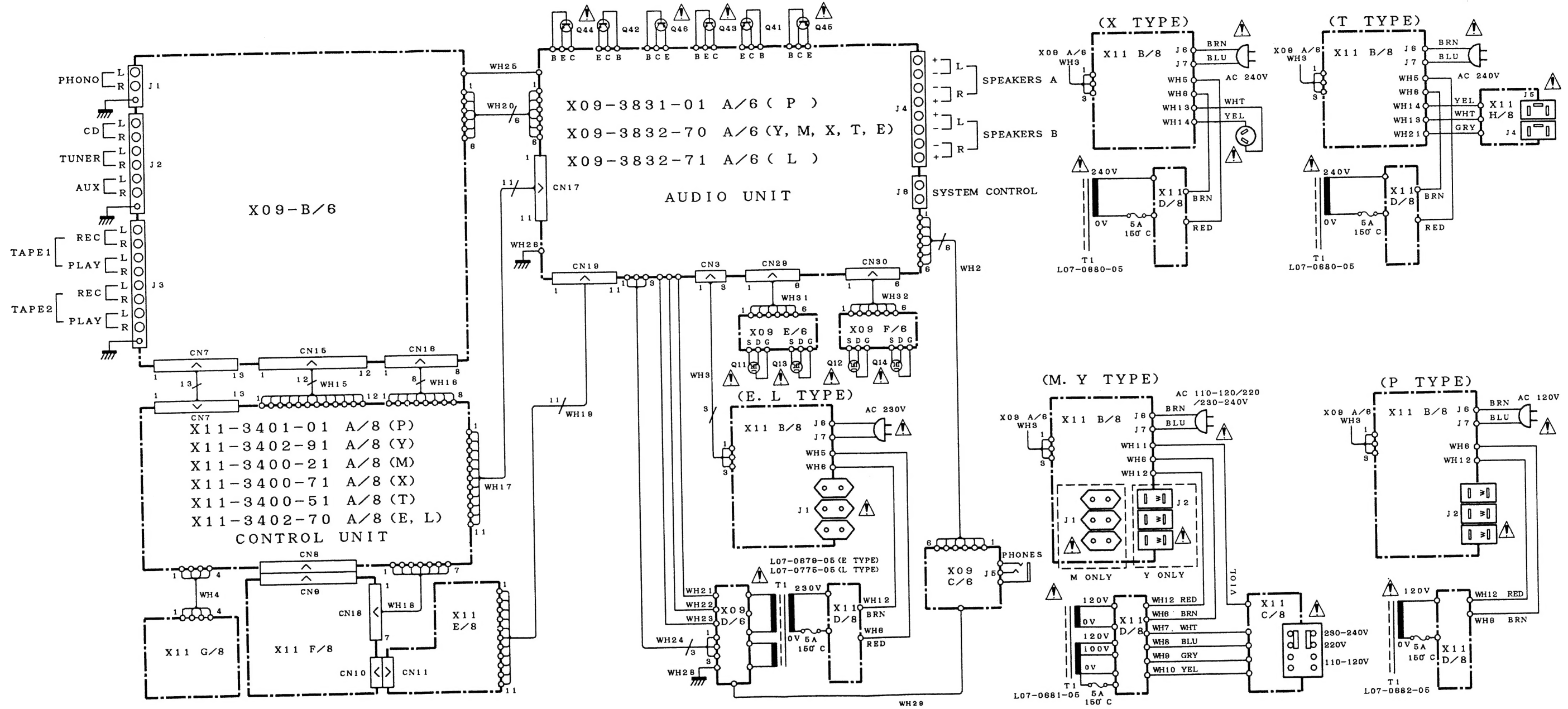
N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINT DE L'ALIGNEMENT	ALIGNER POUR	FIG.
Sauf indication contraire, régler comme suit les commandes respectives POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	COURANT DE PLARISATION	—	Connecter un voltmètre de CC SUR CN27 CN28	VOLUME: 0	VR1, 3(G) VR2, 4(D)	6mV (30 mA)	(a)

ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	VORSTÄRKER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
Wenn nicht anders angegeben, die einzelnen Schalter wie folgt einstellen: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	LEERLAUFSTROM	—	Einen Gleichspannungsmesser über CN27 CN28 anschließen.	VOLUME: 0	VR1, 3(L) VR2, 4(R)	6 mV (30 mA)	(a)

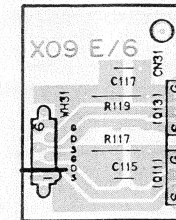
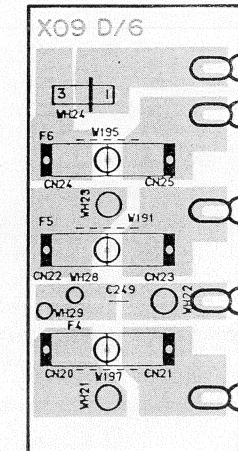
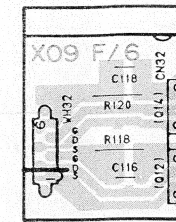
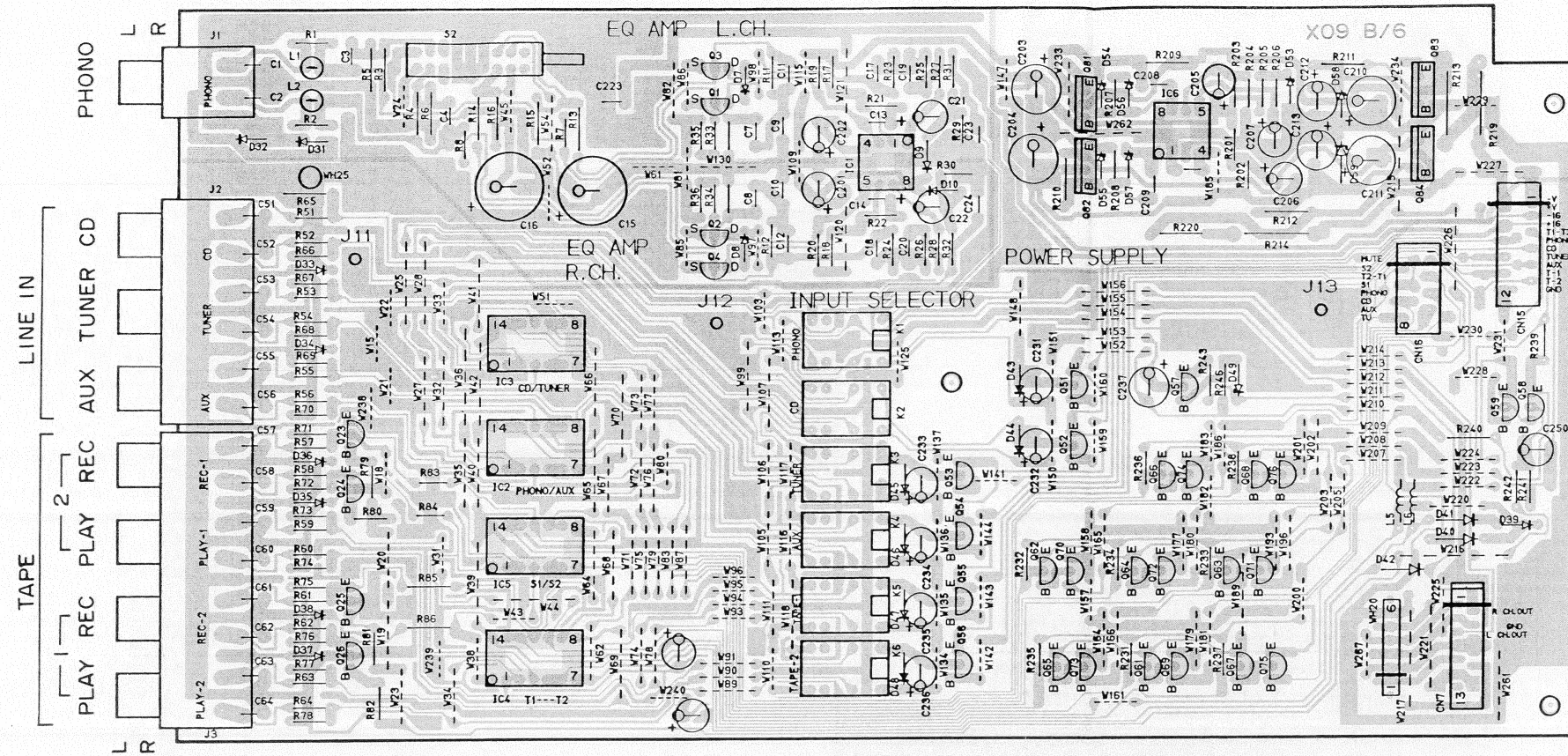
KA-4050R

WIRING DIAGRAM

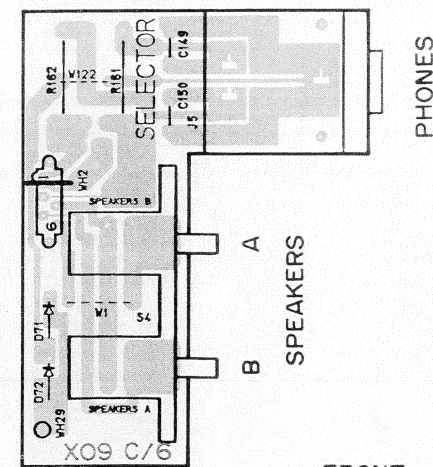
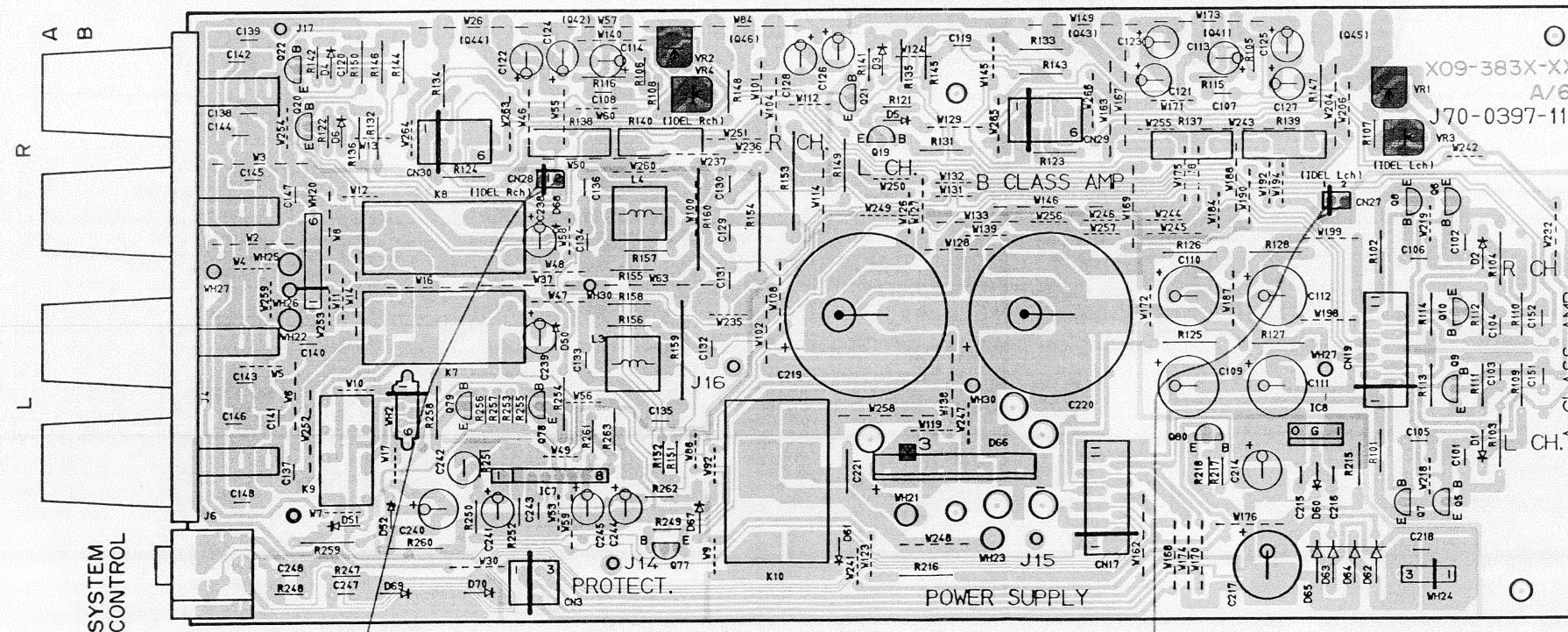


PC BOARD (Component side view)

AUDIO UNIT (X09-383X-XX)



SPEAKERS (A or B: 4~16Ω, A and B: 8~16Ω)



DC Voltmeter

(a) IDLE CURRENT: 6 mV (30mA)



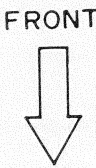
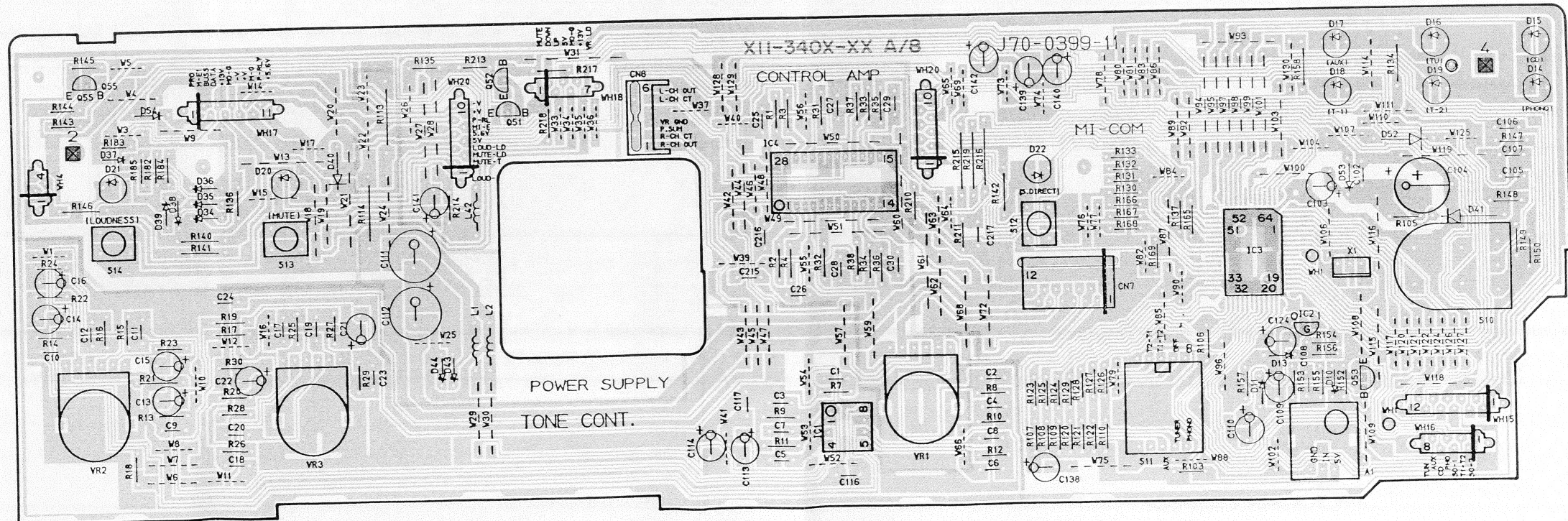
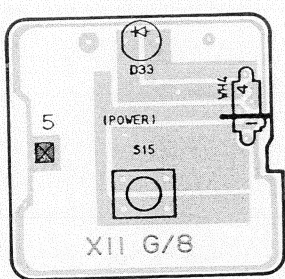
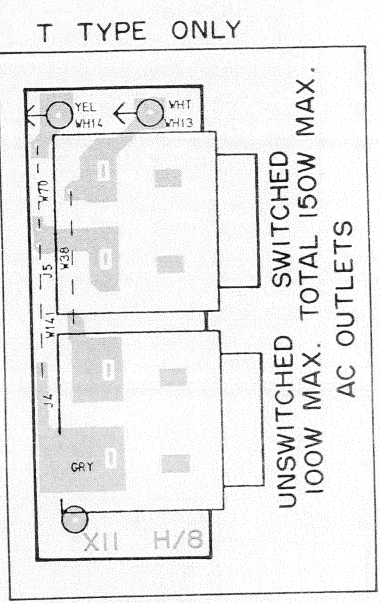
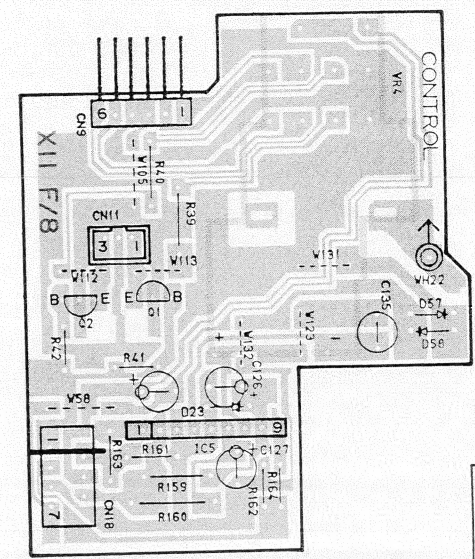
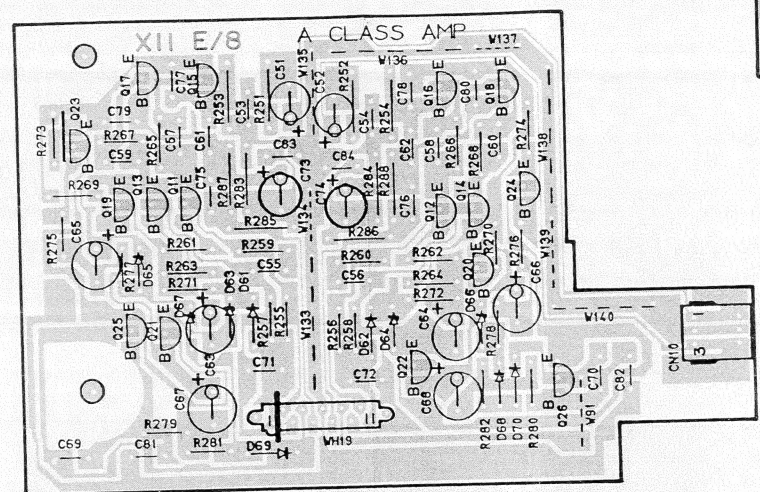
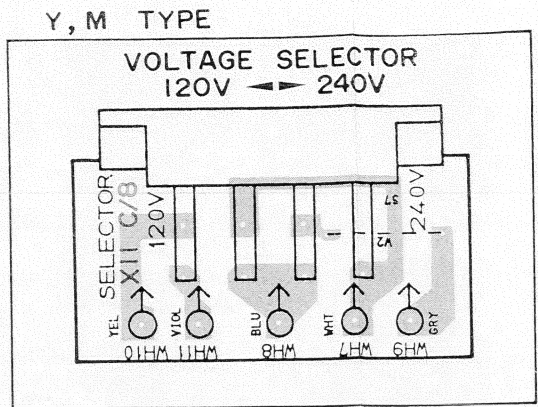
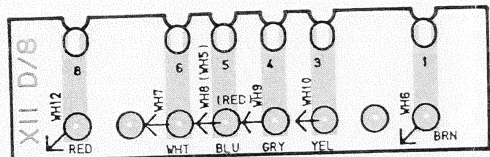
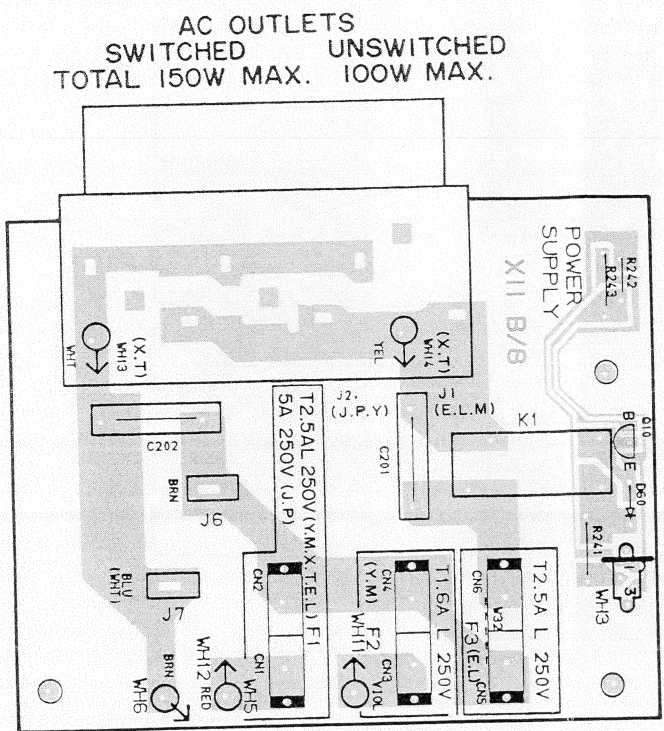
DC Voltmeter

(a) IDLE CURRENT: 6 mV (30mA)

FRONT

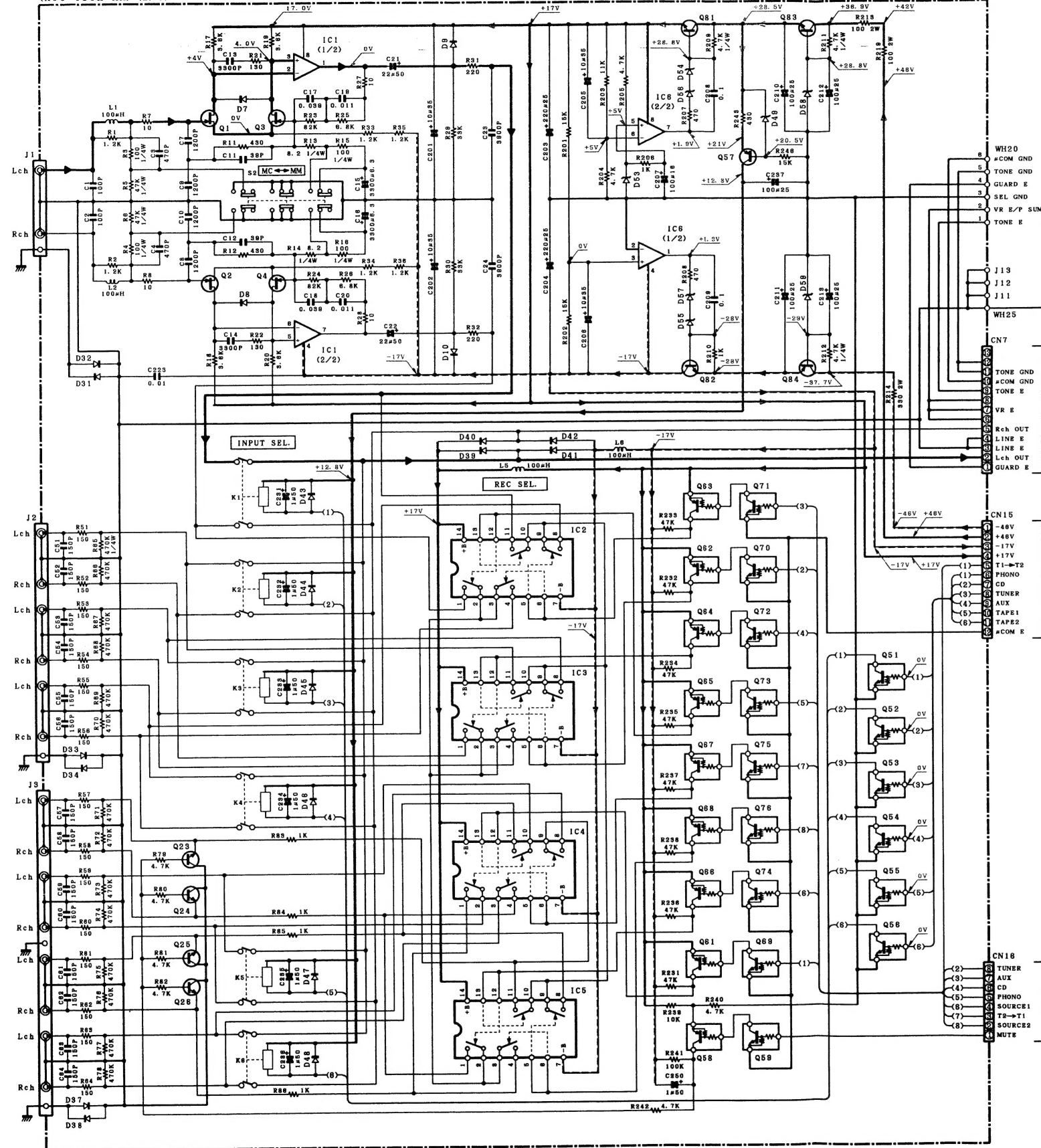
Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Component side view) CONTROL UNIT (X11-340X-XX)



Refer to the schematic diagram for the values of resistors and capacitors.

(X09-383X-XX) (B/6)

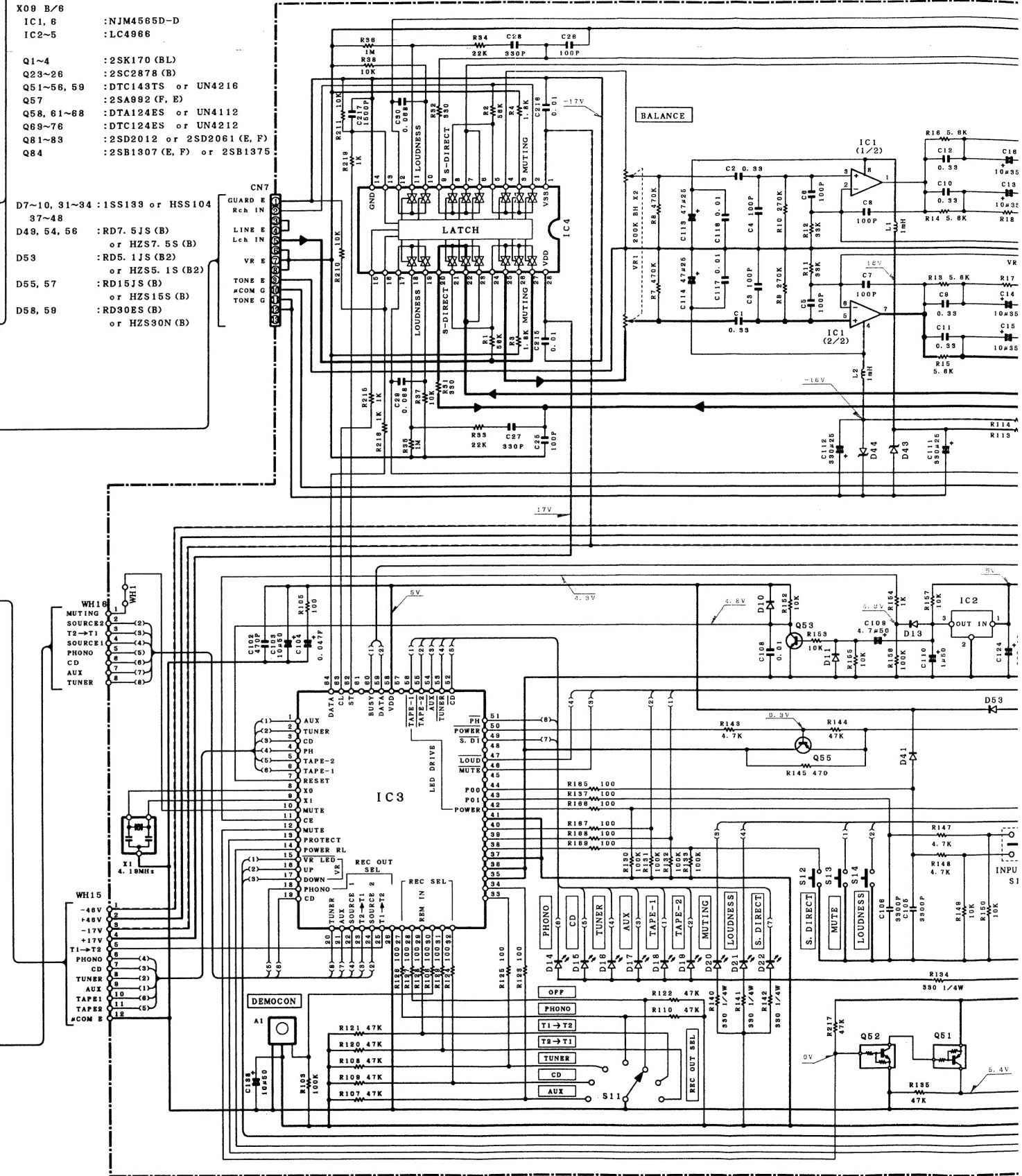


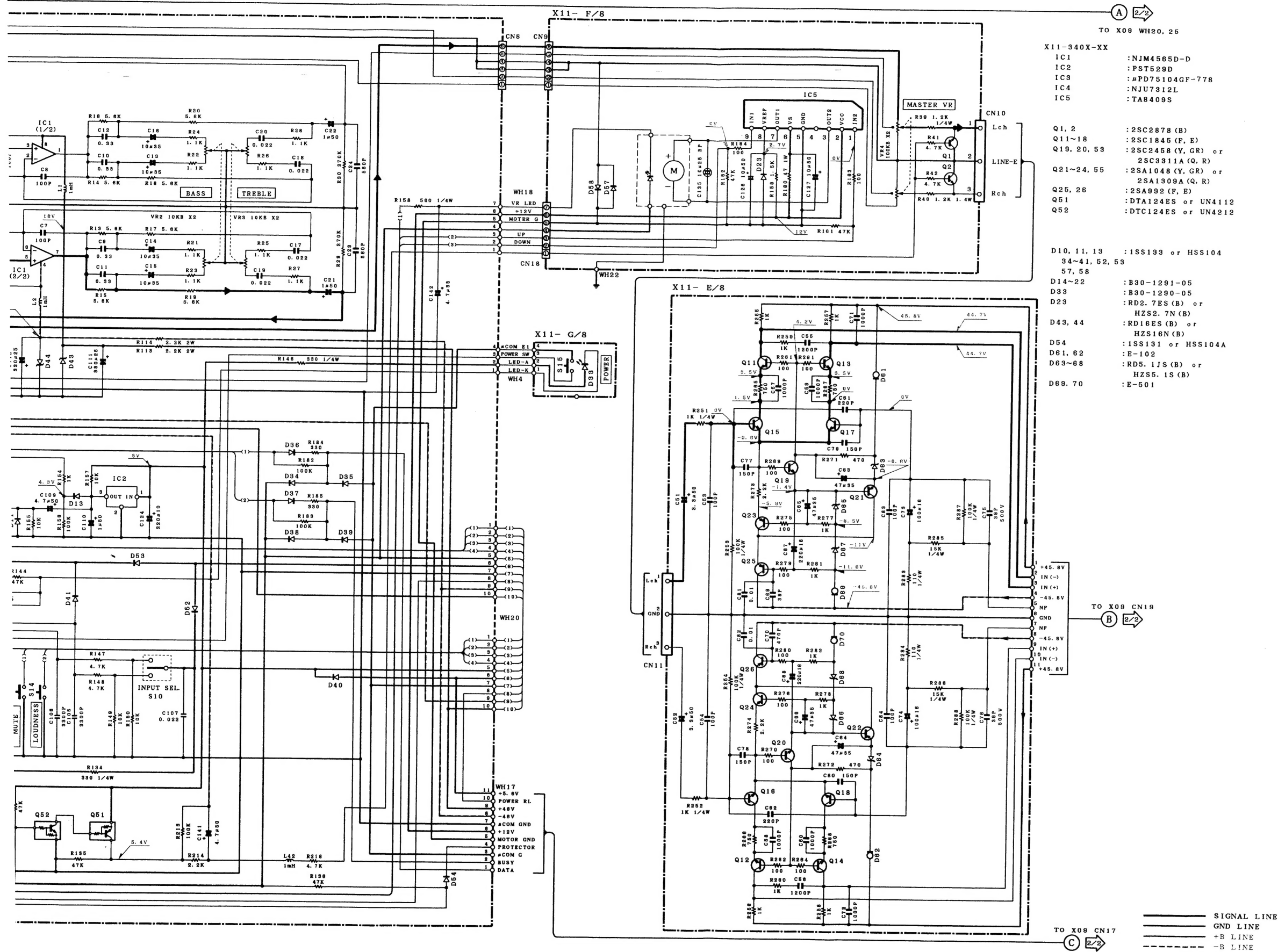
X09 B/6
IC1, 6
IC2-5

:NJM4565D-D
:LC4966
Q1~4 :2SK170 (BL)
Q23~26 :2SC2878 (B)
Q51~56, 59 :DTC143TS or UN4216
Q57 :2SA992 (F, E)
Q58, 61~68 :DTA124ES or UN4112
Q69~76 :DTC124ES or UN4212
Q81~83 :2SD2012 or 2SD2061 (E, F)
Q84 :2SB1307 (E, F) or 2SB1375

D7~10, 31~34 :1SS133 or HSS104
37~48 :RD7.5JS (B)
D49, 54, 56 :or HZS7.5S (B)
D53 :RD5.1JS (B2)
D55, 57 :or HZS5.1S (B2)
D58, 59 :RD15JS (B)
or HZS15S (B)
or RD30ES (B)
or HZS30N (B)

(X11-340X-XX) (A/8)





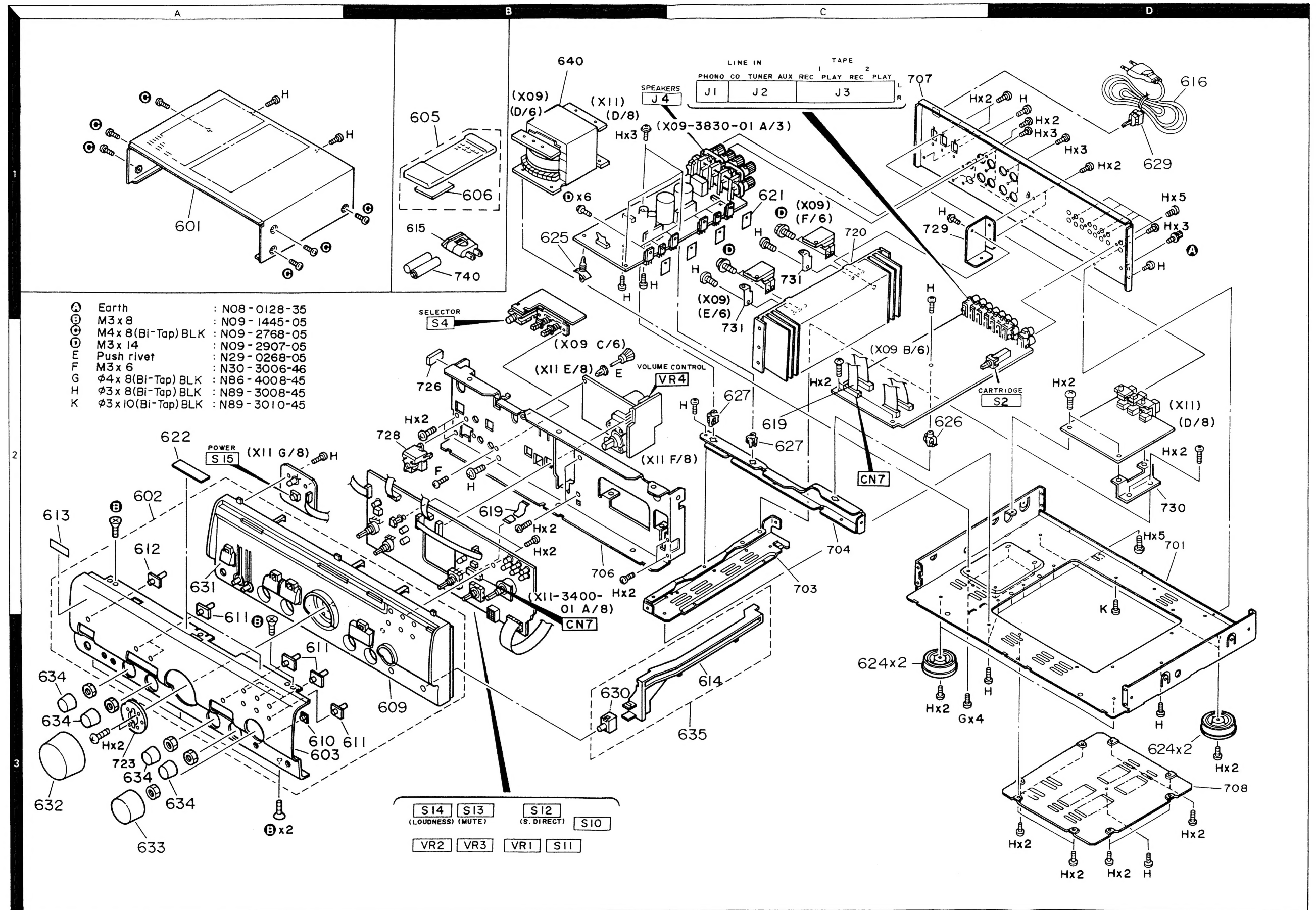
DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or units.

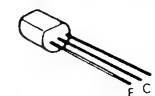
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser ohne Eingangssignal gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). **⚠** Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

EXPLODED VIEW

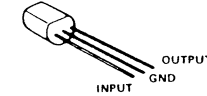




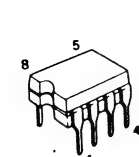
2SA1124
2SA992
2SC1845
2SC2632
2SC2878



2SB1375
2SD2012



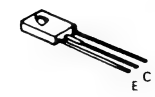
PST529D



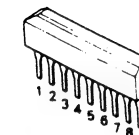
NJM4565D-D



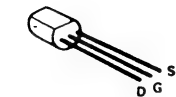
UPC7805AHF



2SA1110



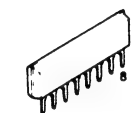
TA8409S



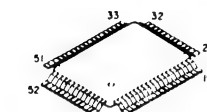
2SK170



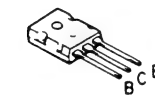
DTA124ES
DTC124ES
DTC143TS
UN4112
2SA1048
2SC2458



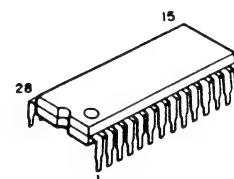
UPC1237HA



UPD75104GF-778



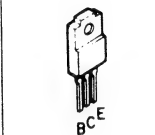
2SB1162BD*5
2SD1717BD*5



NJU7312L



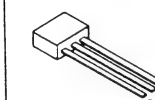
LC4966



2SB1370
2SD2061



TA7805S



UN4212
UN4216
2SA1309A
2SC3311A

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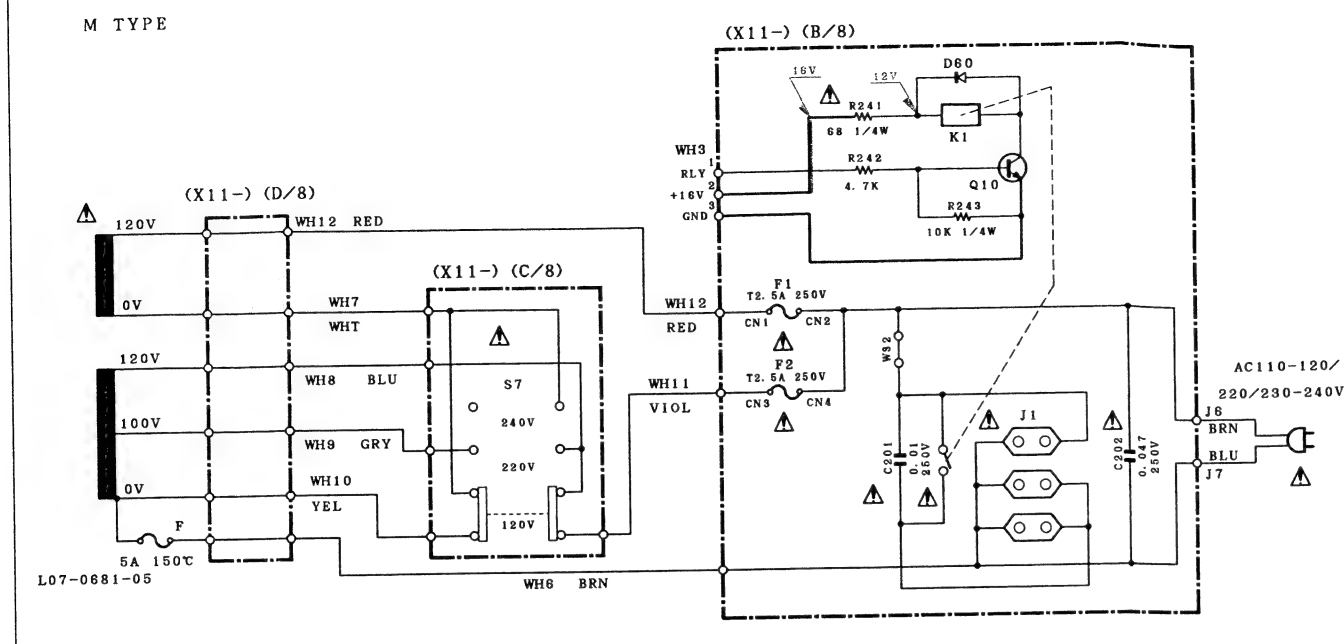
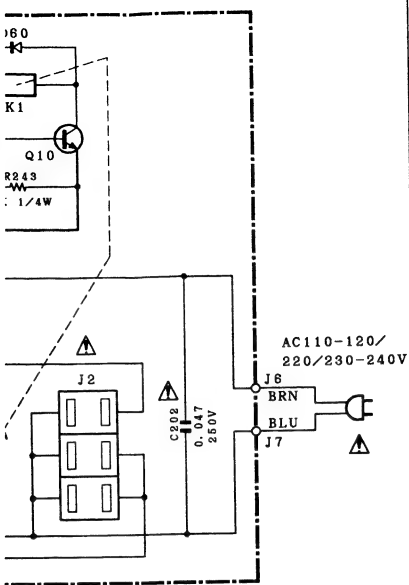
Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser ohne Eingangssignal gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

2/2

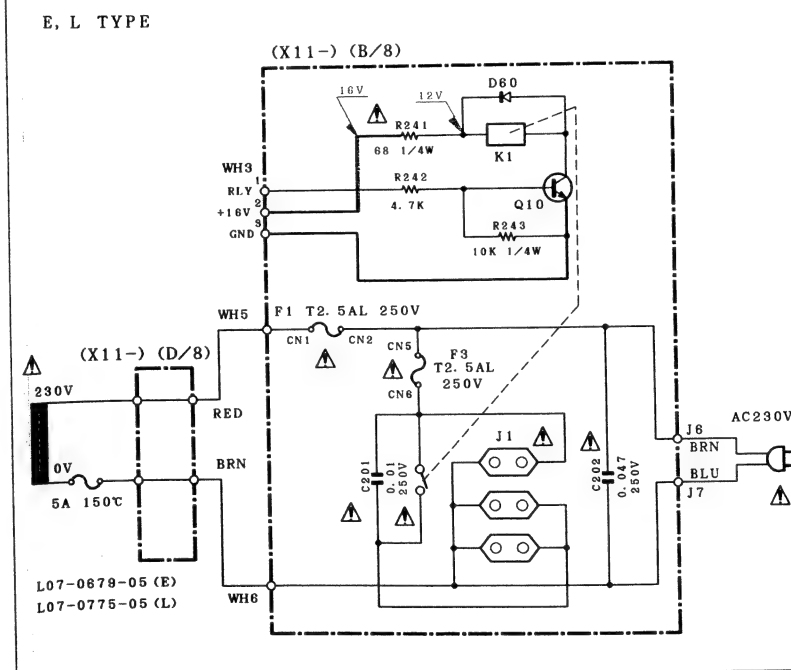
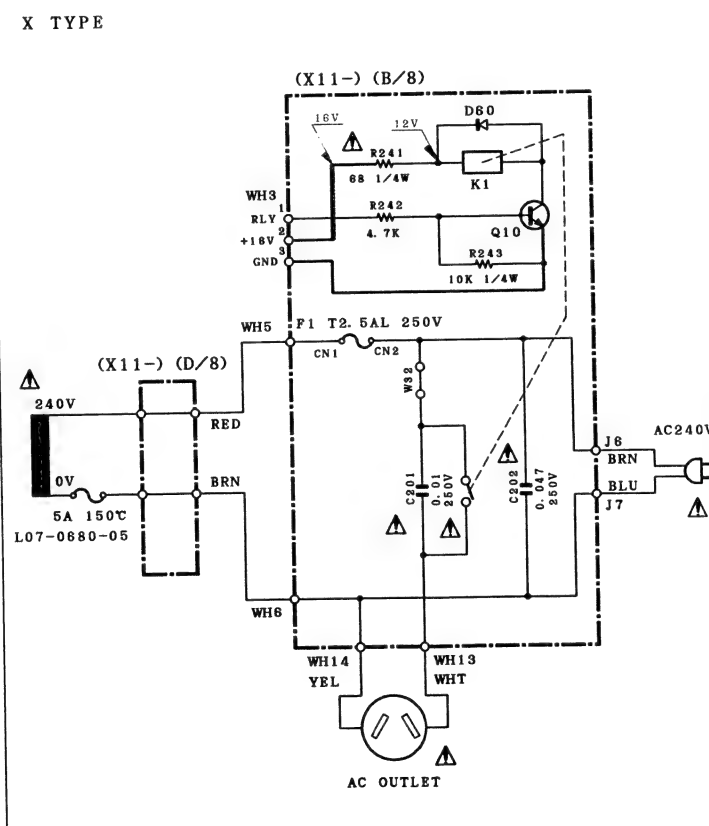
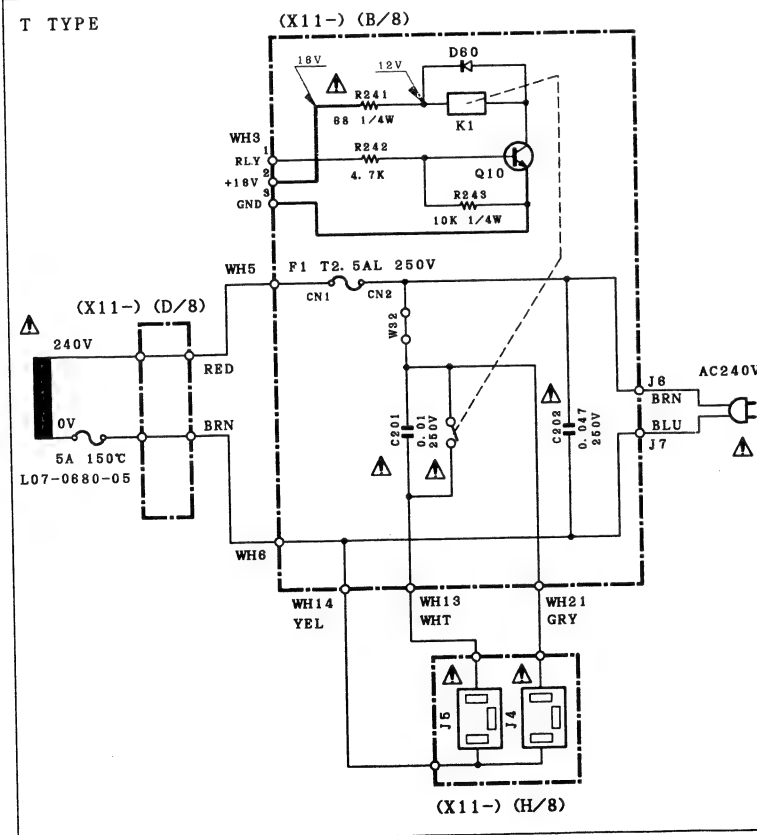
KA-4050R

KENWOOD

Y08-4822-70



D60 : 1SS133 or HSS104
Q10 : 2SC2458 (Y, GR) or 2SC3311A (Q, R)



— SIGNAL LINE
— GND LINE
— +B LINE
- - - -B LINE

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KA-4050R

KA-4050R

PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
KA-4050R						
601	1A		A01-1986-02	METALLIC CABINET		
602	2A	*	A60-0381-21	PANEL ASSY		
603	3A	*	A60-0382-02	PANEL		
605	1B		A70-0932-05	REMOTE CONTROLLER ASSY		
606	1B	*	A09-0146-08	BATTERY COVER		
609	3B	*	B01-0483-11	PANEL ESCUTCHEON		
610	3A		B11-0237-14	COLOR FILTER		
611	3A		B12-0163-04	INDICATOR		
612	2A		B12-0232-04	INDICATOR		
613	2A		B43-0287-04	KENWOOD BADGE		
-			B46-0094-03	WARRANTY CARD	Y	
-			B46-0095-03	WARRANTY CARD	Y	
-			B46-0096-33	WARRANTY CARD	X	
-			B46-0121-23	WARRANTY CARD	P	
-			B46-0122-23	WARRANTY CARD	EL	
-			B46-0143-13	WARRANTY CARD	T	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-		*	B60-1136-00	INSTRUCTION MANUAL (ENGLISH)	ELP	
-		*	B60-1137-00	INSTRUCTION MANUAL (FRENCH)	EL	
-		*	B60-1138-00	INSTRUCTION MANUAL (GE,DU,IT)	EL	
-		*	B60-1139-00	INSTRUCTION MANUAL (CHINESE)	M	
-		*	B60-1140-00	INSTRUCTION MANUAL (SPANISH)	EM	
614	3C	*	D21-1657-23	EXTENSION SHAFT		
△ 615	1B		E03-0115-05	AC PLUG ADAPTER	M	
△ 616	1D		E30-0459-05	AC POWER CORD	ELM	
△ 616	1D		E30-0685-05	AC POWER CORD	Y	
△ 616	1D		E30-0974-05	AC POWER CORD	P	
△ 616	1D		E30-2714-05	AC POWER CORD	X	
△ 616	1D		E30-2718-05	AC POWER CORD	T	
△ 619	2B, 2C		E31-4747-05	FLAT CABLE X09-(CN7)-X11-(CN7)	X	
-			E03-0141-05	AC OUTLET		
621	1C		F20-1322-05	INSULATING BOARD		
622	2A	*	G10-0185-04	NON-WOVEN FABRIC		
-		*	H50-0606-04	ITEM CARTON CASE	ELPYMX	
-		*	H50-0630-04	ITEM CARTON CASE	T	
-		*	H10-5168-12	POLYSTYRENE FOAMED FIXTURE (L)	ELPYMX	
-		*	H10-5169-02	POLYSTYRENE FOAMED FIXTURE (R)	ELPYMX	
-		*	H10-5499-02	POLYSTYRENE FOAMED FIXTURE (L)	T	
-			H10-5500-02	POLYSTYRENE FOAMED FIXTURE (R)	T	
-			H25-0225-04	PROTECTION BAG (850X450X0.03)	ELPYMX	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	ELPYMX	
-			H25-0651-04	PROTECTION BAG (0232 PRINTED)	T	
-			H25-0654-04	PROTECTION BAG (0225 PRINTED)	T	
624	3C, 3D		J02-1072-05	FOOT		
625	1B		J19-0514-05	UNIT HOLDER		
626	2C		J19-3178-05	UNIT HOLDER		
627	2C		J19-3179-05	UNIT HOLDER		
△ 629	1D		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		

L:Scandinavia

Y:PX(Far East, Hawaii)

Y:AAFES(Europe)

K:USA

T:England

X:Australia

P:Canada

E:Europe

M:Other Areas

△ indicates safety critical components.

PARTS LIST

× New Parts

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Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
630	3B		K29-3405-04	KNOB CARTRIDGE (MM/MC)		
631	2A		K29-4210-03	KNOB POWER		
632	3A	*	K29-4213-14	KNOB VOLUME		
633	3A		K29-4215-04	KNOB INPUT SELECTOR		
634	3A		K29-4216-04	KNOB TONE, BAL, REC OUT SEL		
635	3C	*	K29-4293-23	KNOB CARTRIDGE (MM/MC ASSY)		
△ 640	1B	*	L07-0679-05	POWER TRANSFORMER	E	
△ 640	1B	*	L07-0680-05	POWER TRANSFORMER	X	
△ 640	1B	*	L07-0681-05	POWER TRANSFORMER	T	
△ 640	1B	*	L07-0682-05	POWER TRANSFORMER	P	
△ 640	1B	*	L07-0775-05	POWER TRANSFORMER	L	
A	1D		N08-0128-35	BINDING POST (EARTH)		
B	2A, 3A		N09-1445-05	SET SCREW (M3X8)		
C	1A		N09-2768-05	SEMS (TAPTITE SCREW)(4X8)		
D	1B, 1C		N09-2907-05	SEMS (TAPTITE SCREW)(3X14)		
E	2B		N29-0268-05	PUSH RIVET		
F	1D, 3D		N30-3006-46	PAN HEAD MACHINE SCREW		
G	3D		N86-4008-45	BINDING HEAD TAPTITE SCREW		
H	3C		N89-3008-45	BINDING HEAD TAPTITE SCREW		
K	2B		N89-3010-45	BINDING HEAD TAPTITE SCREW		
KA-4050R (TG: TITAN GRAY)						
601	1A	*	A01-3029-02	METALLIC CABINET		
602	2A	*	A60-0383-21	PANEL ASSY		
603	3A	*	A60-0384-02	PANEL		
605	1B		A70-0932-05	REMOTE CONTROLLER ASSY		
606	1B	*	A09-0146-08	BATTERY COVER		
609	3B	*	B01-0500-01	PANEL ESCUTCHEON		
610	3A		B11-0237-14	COLOR FILTER		
611	3A		B12-0163-04	INDICATOR		
612	2A	*	B12-0232-04	INDICATOR		
613	2A		B43-0287-04	KENWOOD BADGE		
-			B46-0122-23	WARRANTY CARD		
-		*	B60-1136-00	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-1137-00	INSTRUCTION MANUAL (FRENCH)		
-		*	B60-1138-00	INSTRUCTION MANUAL (GE,DU,IT)		
-		*	B60-1140-00	INSTRUCTION MANUAL (SPANISH)	E	
614	3C	*	D21-1657-23	EXTENSION SHAFT		
△ 616	1D		E30-0459-05	AC POWER CORD		
619	2B, 2C		E31-4747-05	FLAT CABLE X09-(CN7)-X11-(CN7)		
621	1C		F20-1322-05	INSULATING BOARD		
622	2A	*	G10-0185-04	NON-WOVEN FABRIC		
-		*	H50-0607-04	ITEM CARTON CASE		
-		*	H10-5168-12	POLYSTYRENE FOAMED FIXTURE (L)		
-		*	H10-5169-02	POLYSTYRENE FOAMED FIXTURE (R)		
-		*	H25-0225-04	PROTECTION BAG (850X450X0.03)		
-		*	H25-0232-04	PROTECTION BAG (235X350X0.03)		
624	3C, 3D		J02-1072-05	FOOT		
625	1B		J19-0514-05	UNIT HOLDER		
626	2C		J19-3178-05	UNIT HOLDER		
627	2C		J19-3179-05	UNIT HOLDER		
△ 629	1D		J42-0083-05	POWER CORD BUSHING		

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630	3B		K29-3405-04	KNØB CARTRIDGE (MM/MC)		
631	2A		K29-4210-03	KNØB POWER		
632	3A	*	K29-4213-14	KNØB VOLUME		
633	3A		K29-4215-04	KNØB INPUT SELECTØR		
634	3A		K29-4216-04	KNØB TØNE,BAL,REC ØUT SEL		
635	3C	*	K29-4293-23	KNØB CARTRIDGE (MM/MC ASSY)		
△ 640	1B	*	L07-0679-05	POWER TRANSFORMER	E	
△ 640	1B	*	L07-0680-05	POWER TRANSFORMER	X	
△ 640	1B	*	L07-0681-05	POWER TRANSFORMER	Y	
△ 640	1B	*	L07-0682-05	POWER TRANSFORMER	M	
△ 640	1B	*	L07-0775-05	POWER TRANSFORMER	L	
A	1D		N08-0128-35	BINDING POST (EARTH)		
B	2A, 3A		N09-1445-05	SET SCREW (M3X8)		
C	1A		N09-2768-05	SEMS (TAPTITE SCREW)(4X8)		
D	1B, 1C		N09-2907-05	SEMS (TAPTITE SCREW)(3X14)		
E	2B		N29-0268-05	PUSH RIVET		
F	1D, 3D		N30-3006-46	PAN HEAD MACHINE SCREW		
G	3D		N86-4008-45	BINDING HEAD TAPTITE SCREW		
H	3C		N89-3008-45	BINDING HEAD TAPTITE SCREW		
K	2B		N89-3010-45	BINDING HEAD TAPTITE SCREW		
KA-4050R (TG: TITAN GRAY)						
601	1A	*	A01-3029-02	METALLIC CABINET		
602	2A	*	A60-0383-21	PANEL ASSY		
603	3A	*	A60-0384-02	PANEL		
605	1B		A70-0932-05	REMOTE CONTRØLLER ASSY		
606	1B	*	A09-0146-08	BATTERY COVER		
609	3B	*	B01-0500-01	PANEL ESCUTCHEON		
610	3A		B11-0237-14	CØLØR FILTER		
611	3A		B12-0163-04	INDICATØR		
612	2A	*	B12-0232-04	INDICATØR		
613	2A		B43-0287-04	KENWOOD BADGE		
-			B46-0122-23	WARRANTY CARD		
-		*	B60-1136-00	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-1137-00	INSTRUCTION MANUAL (FRENCH)		
-		*	B60-1138-00	INSTRUCTION MANUAL (GE,DU,IT)		
-		*	B60-1140-00	INSTRUCTION MANUAL (SPANISH)	E	
614	3C	*	D21-1657-23	EXTENSION SHAFT		
△ 616	1D		E30-0459-05	AC POWER CØRD		
619	2B, 2C		E31-4747-05	FLAT CABLE X09-(CN7)-X11-(CN7)		
621	1C		F20-1322-05	INSULATING BOARD		
622	2A	*	G10-0185-04	NON-WOVEN FABRIC		
-		*	H50-0607-04	ITEM CARTON CASE		
-		*	H10-5168-12	PØLYSTYRENE FØAMED FIXTURE (L)		
-		*	H10-5169-02	PØLYSTYRENE FØAMED FIXTURE (R)		
-			H25-0225-04	PROTECTION BAG (850X450X0.03)		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
624	3C, 3D		J02-1072-05	FOOT		
625	1B		J19-0514-05	UNIT HOLDER		
626	2C		J19-3178-05	UNIT HOLDER		
627	2C		J19-3179-05	UNIT HOLDER		
△ 629	1D		J42-0083-05	POWER CØRD BUSHING		

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-			J61-0307-05	WIRE BAND		
630	3B	*	K29-5684-13	KNØB CARTRIDGE (MM/MC)		
631	2A	*	K29-5678-03	KNØB POWER		
632	3A	*	K29-5679-14	KNØB VOLUME		
633	3A		K29-5682-04	KNØB INPUT SELECTØR		
634	3A	*	K29-5683-04	KNØB TØNE,BAL,REC ØUT SEL		
635	3C	*	K29-5685-04	KNØB CARTRIDGE (MM/MC ASSY)		
△ 640	1B	*	L07-0679-05	POWER TRANSFORMER	E	
△ 640	1B	*	L07-0775-05	POWER TRANSFORMER	L	
A	1D		N08-0128-35	BINDING POST (ア-ス)		
B	2A, 3A		N09-1445-05	SET SCREW (M3X8 ヶラ)		
C	1A		N09-2768-05	SEMS (TAPTITE SCREW)(4X8 ハイソント)		
D	1B, 1C		N09-2907-05	SEMS (TAPTITE SCREW)(3X14)		
E	2B		N29-0268-05	PUSH RIVET		
F	1D, 3D		N30-3006-46	PAN HEAD MACHINE SCREW		
G	3D		N86-4008-45	BINDING HEAD TAPTITE SCREW		
H	3C		N89-3008-45	BINDING HEAD TAPTITE SCREW		
K	2B		N89-3010-45	BINDING HEAD TAPTITE SCREW		
AUDIO UNIT (X09-383X-XX)						
C1 ,2			CF92FV1H101K	MF 100PF	K	
C3 ,4			CF92FV1H471J	MF 470PF	J	
C7 -10			CF92FV1H122J	MF 1200PF	J	
C11 ,12			CC45FSL1H390J	CERAMIC 39PF	J	
C13 ,14			CF92FV1H332J	MF 3300PF	J	
C15 ,16			C90-1951-05	ELECTRØ 3300UF	6.3WV	
C17 ,18			CF92FV1H393J	MF 0.039UF	J	
C19 ,20			CF92FV1H113J	MF 0.011UF	J	
C21 ,22			CE04KW1H220M	ELECTRØ 22UF	50WV	
C23 ,24			CF92FV1H392J	MF 3900PF	J	
C51 -64			CF92FV1H151K	MF 150PF	K	
C101,102			CC45FSL2H220J	CERAMIC 22PF	J	
C103,104			CF92FV1H103J	MF 0.010UF	J	
C105,106			CC45FSL2H470J	CERAMIC 47PF	J	
C107,108			CF92FV1H103J	MF 0.010UF	J	
C109-112			CE04DW1J101M	ELECTRØ 100UF	63WV	
C113,114			CE04KW1H100M	ELECTRØ 10UF	50WV	
C119,120			CF92FV1H471J	MF 470PF	J	
C121-128			CE04KW2A2R2M	ELECTRØ 2.2UF	100WV	
C129,130			CF92FV1H333J	MF 0.033UF	J	
C131,132			CF92FV1H124J	MF 0.12UF	J	
C133-136			CF92FV1H104J	MF 0.10UF	J	
C137-140			CF92FV1H561J	MF 560PF	J	
C141,142			CF92FV1H682J	MF 6800PF	J	
C143-146			CK45FB1H222K	CERAMIC 2200PF	K	
C147,148			CF92FV1H682J	MF 6800PF	J	
C149,150			CF92FV1H102J	MF 1000PF	J	
C201,202			CE04KW1V100M	ELECTRØ 10UF	35WV	
C203,204			CE04KW1E221M	ELECTRØ 220UF	25WV	
C205,206			CE04KW1V100M	ELECTRØ 10UF	35WV	
C207			CE04KW1H470M	ELECTRØ 47UF	50WV	
C208,209			CF92FV1H104J	MF 0.10UF	J	
C210,211			CE04KW1V101M	ELECTRØ 100UF	35WV	
C212,213			CE04KW1V470M	ELECTRØ 47UF	35WV	

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C214 C215, 216 C217 C218 C219, 220	2C	*	CE04KW1A101M CF92FV1H104J CE04KW1E102M CK45FF1H103Z C90-3510-05	ELECTR0 100UF 10WV MF 0.10UF J ELECTR0 1000UF 25WV CERAMIC 0.010UF Z ELECTR0 7500UF 56WV		
C221 C223 C231-236 C237 C238, 239			CK45FE2H103P CF92FV1H103J CE04KW1H010M CE04KW1E101M CE04KW1V100M	CERAMIC 0.010UF P MF 0.010UF J ELECTR0 1.0UF 50WV ELECTR0 100UF 25WV ELECTR0 10UF 35WV		
C240, 241 C242 C243 C244 C245			CE04KW1C220M CE04HW1A220M CK45FF1H103Z CE04KW1H4R7M CE04KW1C330M	ELECTR0 22UF 16WV NP-ELEC 22UF 10WV CERAMIC 0.010UF Z ELECTR0 4.7UF 50WV ELECTR0 33UF 16WV		
C247, 248 C249 C250			CC45FSL1H221J CK45FF1H103Z CE04KW1H010M	CERAMIC 220PF J CERAMIC 0.010UF Z ELECTR0 1.0UF 50WV		
CN7 J1 J2 J3 J4			E40-4153-05 E13-0249-05 E13-0633-05 E13-0825-05 E20-0839-15	FLAT CABLE CONNCTOR PHON0 JACK PHON0 PHON0 JACK(6P) CD/TUNER/AUX PHON0 JACK TAPE1,2 REC,PLAY SCREW TERMINAL BOARD SPEAKERS		EPYMXT
J4 J5 J6			E70-0029-05 E11-0208-05 E11-0188-05	SCREW TERMINAL BOARD SPEAKERS PHONE JACK PHON0S MINIATURE PHONE JACK SYNCHRO		L
F6 F6			F04-1026-05 F06-1022-05	FUSE (UL) (250V 1A UL) FUSE (SEMK0) (250V T1AL)		P ELYMXT
- CN24, 25			J11-0098-05 J13-0075-05	WIRE CLAMPER FUSE CLIP		
L1 ,2 L3 ,4 L5 ,6			L40-1011-47 L39-0085-05 L40-1011-17	SMALL FIXED INDUCTOR(100UH,K) PHASE COMPENSATION COIL SMALL FIXED INDUCTOR(100UH,K)		
R23 ,24 R25 ,26 R101,102 R103,104 R117-120			RN14BK2C8202FTS RN14BK2C6801FTS RD14AB2E820JTS RS14DB3A822JTE RD14AB2E391JTS	RN 82.0K F 1/6W RN 6.80K F 1/6W FL-PROOF RD 82 J 1/4W FL-PROOF RS 8.2K J 1W FL-PROOF RD 390 J 1/4W		
R123,124 R125-128 R131,132 R133,134 R135,136			RD14AB2E151JTS RS14DB3A101JTE RD14AB2E681JTS RD14AB2E4R7JTS RD14AB2E152JTS	FL-PROOF RD 150 J 1/4W FL-PROOF RS 100 J 1W FL-PROOF RD 680 J 1/4W FL-PROOF RD 4.7 J 1/4W FL-PROOF RD 1.5K J 1/4W		
R137-140 R143,144 R145,146 R147,148 R153,154			R92-0205-05 RD14AB2E122JTS RD14AB2E681JTS RD14AB2E4R7JTS RS14GB3D100JKW	METAL-PLATE 0.1 K 2W FL-PROOF RD 1.2K J 1/4W FL-PROOF RD 680 J 1/4W FL-PROOF RD 4.7 J 1/4W FL-PROOF RS 10 J 2W		
R155 R156,157 R158 R159,160 R161,162			RD14AB2E2R2JTS RD14AB2E330JTS RD14AB2E2R2JTS RS14GB3D100JKW RS14DB3D151JTE	FL-PROOF RD 2.2 J 1/4W FL-PROOF RD 33 J 1/4W FL-PROOF RD 2.2 J 1/4W FL-PROOF RS 10 J 2W FL-PROOF RS 150 J 2W		

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R209 R211, 212 R213 R214 R215			RD14AB2E472JTS RD14AB2E472JTS RS14DB3D101JTE RS14DB3D331JTE RD14AB2E680JTS	FL-PROOF RD 4.7K J 1/4W FL-PROOF RD 4.7K J 1/4W FL-PROOF RS 100 J 2W FL-PROOF RS 330 J 2W FL-PROOF RD 68 J 1/4W		
R216 R216 R219 R254 R258			RS14DB3A470JTE RS14DB3A560JTE RS14DB3D101JTE RS14DB3A331JTE RS14DB3A331JTE	FL-PROOF RS 47 J 1W FL-PROOF RS 56 J 1W FL-PROOF RS 100 J 2W FL-PROOF RS 330 J 1W FL-PROOF RS 330 J 1W		
R259 R260 VR1 -4			RS14DB3A332JTE RS14DB3A822JTE R12-1616-05	FL-PROOF RS 3.3K J 1W FL-PROOF RS 8.2K J 1W TRIMMING POT.(1K) IDL		
K1 -6 K7 ,8 K9 K10 K10			S76-0027-05 S51-2092-05 S51-2090-05 S51-2052-05 S76-0015-05	MAGNETIC RELAY MAGNETIC RELAY MAGNETIC RELAY MAGNETIC RELAY MAGNETIC RELAY		P ELYMXT
S2 S4			S40-6035-05 S42-2139-05	PUSH SWITCH CARTRIDGE MC/MM MULTIPLE PUSH SWITCH SPEAKERS		
D1 -6 D1 -6 D7 -10 D7 -10 D31 -34			HSS104A 1SS131 HSS104 1SS133 HSS104	DIODE DIODE DIODE DIODE DIODE		
D31 -34 D37 -48 D37 -48 D49 D49			1SS133 HSS104 1SS133 HZS7.5S(B) RD7.5JS(B)	DIODE DIODE DIODE ZENER DIODE ZENER DIODE		
D50 ,51 D50 ,51 D52 ,53 D52 ,53 D54			HSS104A 1SS131 HZS5.1S(B2) RD5.1JS(B2) HZS7.5S(B)	DIODE DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
D54 D55 D55 D56 D56			RD7.5JS(B) HZS15S(B) RD15JS(B) HZS7.5S(B) RD7.5JS(B)	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
D57 D57 D58 ,59 D58 ,59 D60 ,61			HZS15S(B) RD15JS(B) HZS30N(B) RD30ES(B) HSS104	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE DIODE		
D60 ,61 D62 -65 D62 -65 D66 D66			1SS133 S5688B 1SR139-100 D5SBA20F03 RBV-602LFA	DIODE DIODE DIODE DIODE DIODE		
D67 ,68 D67 ,68 D69 -72 D69 -72			HSS104A 1SS131 HSS104 1SS133	DIODE DIODE DIODE DIODE		

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IC1 IC2 -5 IC6 IC7 IC8			NJM4565D-D LC4966 NJM4565D-D UPC1237HA TA7805S	IC(OP AMP X2) IC(CMOS LOGIC BILATERAL SW) IC(OP AMP X2) IC(POWER AMP) IC(VOLTAGE REGULATOR/ +5V)		
IC8 Q1 -4 Q1 -4 Q5 -8 Q9 ,10			UPC7805AHF 2SK170(BL) 2SK170(V) 2SA1124(R,S) 2SC2632(R,S)	IC(VOLTAGE REGULATOR/ +5V) FET FET TRANSISTOR TRANSISTOR		
Q11 ,12 Q13 ,14 Q19 ,20 Q21 ,22 Q23 -26		*	2SJ313 2SK2013 2SA992(F,E) 2SC1845(F,E) 2SC2878(B)	FET FET TRANSISTOR TRANSISTOR TRANSISTOR		
Q41 ,42 Q43 ,44 Q45 ,45 Q51 -56 Q51 -56			2SC4137F19(V,W) 2SB1162BD*5 2SD1717BD*5 DTC143TS UN4216	TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		
Q57 Q58 Q58 Q59 Q59			2SA992(F,E) DTA124ES UN4112 DTC143TS UN4216	TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		
Q61 -68 Q61 -68 Q69 -76 Q69 -76 Q77			DTA124ES UN4112 DTC124ES UN4212 2SA992(F,E)	DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR		
Q78 ,79 Q80 Q80 Q81 -83 Q81 -83			2SA1110(Q,R) 2SC2458(Y,GR) 2SC3311A(Q,R) 2SD2012 2SD2061(E,F)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q84 Q84			2SB1370(E,F) 2SB1375	TRANSISTOR TRANSISTOR		
CONTROL UNIT (X11-340X-XX)						
D14 -22 D33			B30-1291-05 B30-1290-05	LED (LN21CPSLX(V)-(TA4)) LED (LN21RCASLX(U)-(TA4))		
C1 ,2 C3 -8 C9 -12 C13 -16 C17 -20			CF92FV1H334J CF92FV1H101K CF92FV1H334J CE04KW1V100M CF92FV1H223J	MF 0.33UF J MF 100PF K MF 0.33UF J ELECTRO 10UF 35WV MF 0.022UF J		
C21 ,22 C23 ,24 C25 ,26 C27 ,28 C29 ,30			CE04KW1H010M CF92FV1H561J CF92FV1H101K CF92FV1H331K CF92FV1H683J	ELECTRO 1.0UF 50WV MF 560PF J MF 100PF K MF 330PF K MF 0.068UF J		
C51 ,52 C53 ,54 C55 ,56 C57 -60			CE04KW1H3R3M CF92FV1H101K CF92FV1H122J CF92FV1H102J	ELECTRO 3.3UF 50WV MF 100PF K MF 1200PF J MF 1000PF J		

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C61 ,62 C63 -66 C67 ,68 C69 ,70 C71 ,72			CF92FV1H221K CE04KW1V470M CE04KW1C221M CF92FV1H471J CF92FV1H102J	MF 220PF K ELECTRO 47UF 35WV ELECTRO 220UF 16WV MF 470PF J MF 1000PF J		
C73 ,74 C75 ,76 C77 -80 C81 ,82 C83 ,84			C90-1917-05 CC45FSL2H390J CF92FV1H151K CF92FV1H103J CF92FV1H101K	ELECTRO 100UF 16WV CERAMIC 39PF J MF 150PF K MF 0.010UF J MF 100PF K		
C102 C103 C104 C105,106 C107			CF92FV1H471J CE04KW1H100M C90-1827-05 CF92FV1H332J CF92FV1H223J	MF 470PF J ELECTRO 10UF 50WV BACKUP 0.047F 5.5WV MF 3300PF J MF 0.022UF J		
C108 C109 C110 C111,112 C113,114			CF92FV1H103J CE04KW1H4R7M CE04KW1H010M CE04DW1E331M CE04KW1E470M	MF 0.010UF J ELECTRO 4.7UF 50WV ELECTRO 1.0UF 50WV ELECTRO 330UF 25WV ELECTRO 47UF 25WV		
C116,117 C124 C126,127 C135 C138			CF92FV1H103J CE04KW1A221M CE04KW1H100M CE04HW1E100M CE04KW1H100M	MF 0.010UF J ELECTRO 220UF 10WV ELECTRO 10UF 50WV NP-ELEC 10UF 25WV ELECTRO 10UF 50WV		
C141 C142 C201 C202 C215,216			CE04KW1H4R7M CE04KW1V4R7M C91-1439-05 C91-1444-05 CF92FV1H103J	ELECTRO 4.7UF 50WV ELECTRO 4.7UF 35WV FILM 0.01UF 250VAC MF 0.047UF 250VAC MF 0.010UF J		
C217			CK45FB1H152K	CERAMIC 1500PF K		
CN7 J1 J2 J4 ,5	2B	*	E40-4553-05 E03-0143-05 E03-0142-05 E03-0109-05	FLAT CABLE CONNECTOR AC OUTLET AC OUTLET AC OUTLET	ELM PY T	
F1 F1 F1 ,2 F3			F04-5022-05 F05-2525-05 F05-2525-05 F05-2525-05	FUSE (UL) (125V 5A UL) FUSE (SEMKO) (250V T2.5A) FUSE (SEMKO) (250V T2.5A) FUSE (SEMKO) (250V T2.5A)	P ELXT YM EL	
CN1 -4 CN1 ,2 CN5 ,6			J13-0075-05 J13-0075-05 J13-0075-05	FUSE CLIP FUSE CLIP FUSE CLIP	YM ELPXT EL	
L1 ,2 L42 X1			L40-1021-14 L40-1021-14 L78-0267-05	SMALL FIXED INDUCTOR(1.0MH,K) SMALL FIXED INDUCTOR(1.0MH,K) RESONATOR (4.194MHZ)		
R113,114 R160 R241 R283,284 R285,286			RS14DB3D222JTE RS14DB3A470JTE RD14AB2E680JTS RN14BK2E1100FTS RN14BK2E1502FTS	FL-PROOF RS 2.2K J 2W FL-PROOF RS 47 J 1W FL-PROOF RD 68 J 1/4W RN 110.0 F 1/4W RN 15.0K F 1/4W		
VR1 VR2 ,3 VR4			R06-5191-05 R06-3061-05 R29-5058-05	POTENTIOMETER BALANCE POTENTIOMETER BASS/TREBLE POTENTIOMETER MASTER VR		

L:Scandinavia K:USA P:Canada
Y:PX(Far East, Hawaii) T:England E:Europe
Y:AAFES(Europe) X:Australia M:Other Areas

⚠ indicates safety critical components.

PARTS LIST

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
△ K1 S7 S11 S12 -15			S76-0009-05 S31-2322-05 S60-0010-05 S40-1064-05	MAGNETIC RELAY SLIDE SWITCH VOLTAGE SELECTOR ROTARY SWITCH REC OUT SELECTOR PUSH SWITCH DIR, MUT, LOUD, POW	YM	
S10			T99-0521-05	ROTARY ENCODER INPUT SELECTOR		
D10 ,11 D10 ,11 D13 D13 D23			HSS104 1SS133 HSS104 1SS133 HZS2.7N(B)	DIODE DIODE DIODE DIODE ZENER DIODE		
D23 D34 -41 D34 -41 D43 ,44 D43 ,44			RD2.7ES(B) HSS104 1SS133 HZS16N(B) RD16ES(B)	ZENER DIODE DIODE DIODE ZENER DIODE ZENER DIODE		
D52 ,53 D52 ,53 D54 D54 D57 ,58			HSS104 1SS133 HSS104A 1SS131 HSS104	DIODE DIODE DIODE DIODE DIODE		
D57 ,58 D60 D60 D61 ,62 D63 -68			1SS133 HSS104 1SS133 E-102 HZS5.1S(B)	DIODE DIODE DIODE CONSTANT CURRENT DIODE ZENER DIODE		
D63 -68 D69 ,70 IC1 IC2 IC3			RD5.1JS(B) E-501 NJM4565D-D PST529D UPD75104GF-778	ZENER DIODE CONSTANT CURRENT DIODE IC(OP AMP X2) IC(SYSTEM RESET) IC(4BIT MICROPROCESSOR)		
IC4 IC5 Q1 ,2 Q10 Q10			NJU7312L TA8409S 2SC2878(B) 2SC2458(Y,GR) 2SC3311A(Q,R)	IC(ANALOG SWITCH) IC(MOTOR CONTROL) TRANSISTOR TRANSISTOR TRANSISTOR		
Q11 -18 Q19 ,20 Q19 ,20 Q21 -24 Q21 -24			2SC1845(F,E) 2SC2458(Y,GR) 2SC3311A(Q,R) 2SA1048(Y,GR) 2SA1309A(Q,R)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q25 ,26 Q51 Q51 Q52 Q52			2SA992(F,E) DTA124ES UN4112 DTC124ES UN4212	TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		
Q53 Q53 Q55 Q55			2SC2458(Y,GR) 2SC3311A(Q,R) 2SA1048(Y,GR) 2SA1309A(Q,R)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
A1			W02-1046-05	ELECTRIC CIRCUIT MODULE REM		

L:Scandinavia K:USA P:Canada
Y:PX(Far East, Hawaii) T:England E:Europe
Y:AAFES(Europe) X:Australia M:Other Areas

△ indicates safety critical components.

SPECIFICATIONS

For U.S.A. and Canada

Continuous rated power output (FTC)

60 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20,000 Hz with no more than 0.06% total harmonic distortion.

Dynamic power 90 W (8 Ω)
120 W (4 Ω)

Damping factor 200 (50 Hz)
Total harmonic distortion 0.06%
(20 Hz ~ 20,000 Hz, 60 W, 8 Ω)
..... 0.02%
(1 kHz, 60 W, 8 Ω)

Intermodulation distortion 0.02% (60 W, 8 Ω)
(70 Hz : 7 kHz = 4 : 1)

Frequency response(IHF '78)
TUNER/AUX/TAPE1, 2/CD
..... 5 Hz ~ 100 kHz, +0 dB, -3 dB

PHONO 'RIAA' response 20 Hz ~ 20 kHz,
+0.3 dB, -0.3 dB

Maximum input level
PHONO (MM) 120 mV, 0.05% T.H.D. at 1 kHz
PHONO (MC) 10 mV, 0.05% T.H.D. at 1 kHz

Signal to noise ratio
PHONO (MM) 87 dB (IHF '66)
79 dB (IHF '78)
PHONO (MC) 67 dB (IHF '66)
74 dB (IHF '78)
TUNER/AUX/TAPE1, 2/CD 104 dB (IHF '66)
80 dB (IHF '78)

Input sensitivity/impedance
PHONO (MM) 2.5 mV/47 kΩ
PHONO (MC) 0.2 mV/100 Ω
TUNER/AUX/TAPE1, 2/CD 200 mV/47 kΩ

Tone control
BASS ±10 dB (at 100 Hz)
TREBLE ±10 dB (at 10 kHz)
Loudness control
(VOLUME at -30 dB level) +6 dB (100 Hz)
+3 dB (10 kHz)

Output level/impedance
TAPE REC 200 mV/1 kΩ

General

Power consumption
For Canada 2.5 A
For U.S. Military 220 W

AC outlets
For Canada
SWITCHED 3; (Total 200 W, 1.6 A max.)
For U.S. Military
SWITCHED 3; (Total 200 W max.)

Dimensions W: 440 mm (17-5/16")
H : 137 mm (5 - 3 / 8")
D : 345 mm (13-9/16")

Weight (net) 8.5 kg (18.7 lb)

For U.K. and Europe

Continuous rated power output

(DIN) 1 kHz, at 8 Ω 70 W + 70 W
at 4 Ω 90 W + 90 W
(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.
at 8 Ω 70 W + 70 W
at 4 Ω 90 W + 90 W
Dynamic power 90 W (8 Ω)
120 W (4 Ω)

Damping factor 200 (50 Hz)
Total harmonic distortion 0.06%
(20 Hz ~ 20,000 Hz, 60 W, 8 Ω)
..... 0.02%
(1 kHz, 60 W, 8 Ω)

Intermodulation distortion 0.02% (60 W, 8 Ω)
(70 Hz : 7 kHz = 4 : 1)

Frequency response (IHF '78)
TUNER/AUX/TAPE1, 2/CD
..... 5 Hz ~ 100 kHz, +0 dB, -3 dB

PHONO 'RIAA' response 20 Hz ~ 20 kHz,
+0.3 dB, -0.3 dB

Maximum input level
PHONO (MM) 120 mV, 0.05% T.H.D. at 1 kHz
PHONO (MC) 10 mV, 0.05% T.H.D. at 1 kHz

Signal to noise ratio
PHONO (MM) 87 dB (IHF '66)
79 dB (IHF '78)
PHONO (MC) 67 dB (IHF '66)
74 dB (IHF '78)
TUNER/AUX/TAPE1, 2/CD 104 dB (IHF '66)
80 dB (IHF '78)

PHONO (MM) 58 dB (DIN, 50 mW output)
TUNER/AUX/TAPE1, 2/CD
..... 59 dB (DIN, 50 mW output)

nput sensitivity/impedance
PHONO (MM) 2.5 mV/47 kΩ
PHONO (MC) 0.2 mV/100 Ω
TUNER/AUX/TAPE1, 2/CD 200 mV/47 kΩ

Tone control
BASS ±10 dB (at 100 Hz)
TREBLE ±10 dB (at 10 kHz)
Loudness control
(VOLUME at -30 dB level) +6 dB (100 Hz)
+3 dB (10 kHz)

Output level/impedance
TAPE REC 200 mV/1 kΩ

General

Power consumption 220 W (IEC)
AC outlets
For U.K.
SWITCHED 2; (Total 200 W max.)

For Europe
SWITCHED 3; (Total 200 W max.)
Dimensions W: 440 mm
H: 137 mm
D: 345 mm

Weight (net) 8.5kg

KA-4050R

SPECIFICATIONS

For other countries

Continuous rated power output	
(IHF '66) From 20 Hz to 20,000 Hz 0.06% T.H.D.	
at 8 Ω	60 W + 60 W
(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.	
at 8 Ω	70 W + 70 W
at 4 Ω	90 W + 90 W
Dynamic power	90 W (8 Ω)
	120 W (4 Ω)
Damping factor	
	200 (50 Hz)
Total harmonic distortion	
	0.06%
	(20 Hz ~ 20,000 Hz, 60 W, 8 Ω)
	0.02%
	(1 kHz, 60 W, 8 Ω)
Intermodulation distortion	
	0.02% (60 W, 8 Ω)
	(70 Hz : 7 kHz = 4 : 1)
Frequency response (IHF '78)	
TUNER/AUX/TAPE1, 2/CD	
	5 Hz ~ 100 kHz, +0 dB, -3 dB
PHONO 'RIAA' response	
	20 Hz ~ 20 kHz,
	+0.3 dB, -0.3 dB
Maximum input level	
PHONO (MM)	120 mV, 0.05% T.H.D. at 1 kHz
PHONO (MC)	10 mV, 0.05% T.H.D. at 1 kHz
Signal to noise ratio	
PHONO (MM)	87 dB (IHF '66)
	79 dB (IHF '78)
PHONO (MC)	67 dB (IHF '66)
	74 dB (IHF '78)
TUNER/AUX/TAPE1, 2/CD	
	104 dB (IHF '66)
	80 dB (IHF '78)

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be change without notice.

Input sensitivity/impedance	
PHONO (MM)	2.5 mV/47 kΩ
PHONO (MC)	0.2 mV/100 Ω
TUNER/AUX/TAPE1, 2/CD	200 mV/47 kΩ
Tone control	
BASS	±10 dB (at 100 Hz)
TREBLE	±10 dB (at 10 kHz)
Loudness control	
(VOLUME at -30 dB level)	+6 dB (100 Hz)
	+3 dB (10 kHz)
Output level/impedance	
TAPE REC	200 mV/1 kΩ

General	
Power consumption	
	220 W
AC outlet	
For Australia	
SWITCHED	1; (200 W max.)
For other countries	
SWITCHED	3; (Total 200 W max.)
Dimensions	
	W: 440 mm
	H: 137 mm
	D: 345 mm
Weight (net)	
	8.5 kg

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